

CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

Claim 1. (currently amended) A liquid crystal display comprising:
a front panel,
a rear panel, and
a liquid crystal layer placed between two said panels,

wherein at least one of the front and rear panels comprises an internal polarizer situated between an electrode and a front or rear surface of a substrate in the panel, and

said internal polarizer is made of a material chemically stable at an elevated temperature of at least 150°C, and

said internal polarizer is made of an optically anisotropic dichroic crystal film that comprises rodlike supramolecules comprising at least one disc-shaped polycyclic organic compound with conjugated π -system, and said film being characterized by an intermolecular spacing of 3.4 ± 0.3 Å along its polarization axis, and said optically anisotropic dichroic film is formed from a lyotropic liquid crystal containing at least one dichroic dye, and said internal polarizer and electrode are directly laminated.

Claim 2-3 (canceled)

Claim 4. (original) The liquid crystal display according to claim 1 or 2, wherein thickness of said internal polarizer is less than 1 micron.

Claim 5. (original) The liquid crystal display according to claim 1, wherein the polarizer material is chemically stable at an elevated temperature of at least 200°C.

Claim 6. (original) The liquid crystal display according to claim 1, further comprising an external polarizer situated on the panel other than said internal polarizer.

Claim 7. (original) The liquid crystal display according to claim 1, wherein said rear panel further comprises a reflecting layer.

Claim 8. (original) The liquid crystal display according to claim 1, wherein said rear panel further comprises a semitransparent reflective layer and a backlighting system.

Claim 9. (original) The liquid crystal display according to claim 7 or 8, wherein said front panel further comprises a front lighting system.

Claim 10. (original) The liquid crystal display according to claim 7 or 8, wherein said reflecting layer is diffusive.

Claim 11. (original) The liquid crystal display according to claim 7 or 8, wherein said reflecting layer is specular.

Claim 12. (original) The liquid crystal display according to claim 7 or 8, wherein said reflecting layer is conducting and performs the function of an electrode.

Claim 13. (original) The liquid crystal display according to claim 8, further comprising at least one external polarizer.

Claim 14. (original) The liquid crystal display according to claim 13, wherein the external polarizer is situated on the same panel as the internal polarizer.

Claim 15. (original) The liquid crystal display according to claim 8 or 14, wherein said internal polarizer partially covers the substrate.

Claim 16. (original) The liquid crystal display according to claim 1, wherein said rear panel comprises a backlighting system.

Claim 17. (original) The liquid crystal display according to claim 1, wherein said polarizer performs the function of a phase retarder and/or correcting light filter.

Claim 18. (original) The liquid crystal display according to claim 1, further comprising an antireflection or antiglare coating on a front surface of the display.

Claim 19. (original) The liquid crystal display according to claim 1, further comprising at least one of functional layers selected from the group consisting of a

retardation layer, a protective layer, a light-scattering layer, a planarization layer, a correcting light filter layer, and an insulating layer.

Claim 20. (original) The liquid crystal display according to claim 1, further comprising a retardation layer made of an optically anisotropic dichroic crystal film that comprises rodlike supramolecules comprising at least one disc-shaped polycyclic organic compound with conjugated π -system, and said film being characterized by an intermolecular spacing of 3.4 ± 0.3 Å along its polarization axis.

Claim 21. (original) The liquid crystal display according to claim 1, wherein the thickness and the order of functional layers are selected so as ensure an interference extremum at the display output for at least one wavelength in the spectral range from 500 to 600 nm.

Claim 22. (original) The liquid crystal display according to any of claims 6 or 13, wherein said external polarizer is made of an optically anisotropic dichroic crystal film that comprises rodlike supramolecules comprising at least one disc-shaped polycyclic organic compound with conjugated π -system, and said film being characterized by an intermolecular spacing of 3.4 ± 0.3 Å along its polarization axis.

Claim 23. (original) The liquid crystal display according to claim 22, wherein said optically anisotropic dichroic film is formed from a lyotropic liquid crystal containing at least one dichroic dye.

Claim 24. (canceled)